

10/567,655

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L\* \* \* \* \* STN Columbus \* \* \* \* \*

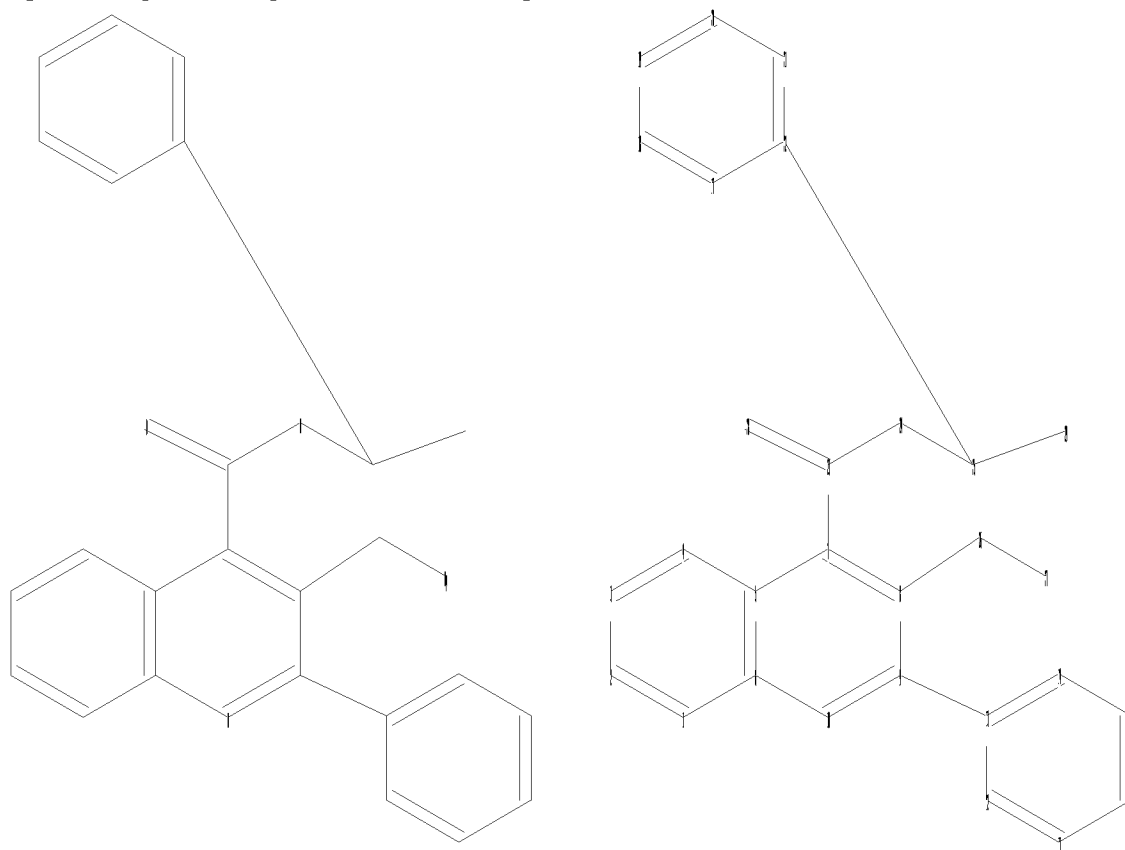
FILE 'HOME' ENTERED AT 14:29:30 ON 17 SEP 2008

=>

=> file reg

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Uploading C:\Program Files\Stnexp\Queries\10567655.str



chain nodes :

23 24 25 26 27 28

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

ring/chain nodes :

29

chain bonds :

7-23 8-26 9-13 22-25 23-24 23-28 24-25 25-29 26-27

ring bonds :

10/567,655

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14  
14-15 15-16 17-18 17-22 18-19 19-20 20-21 21-22  
exact/norm bonds :  
23-24 23-28 24-25 26-27  
exact bonds :  
7-23 8-26 9-13 22-25 25-29  
normalized bonds :  
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 8-9 9-10 11-12 11-16 12-13 13-14  
14-15 15-16 17-18 17-22 18-19 19-20 20-21 21-22  
isolated ring systems :  
containing 1 : 11 : 17 :

Match level :  
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom 22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:Atom  
28:CLASS 29:CLASS

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

L3 277 SEA SSS FUL L1

=> file ca

=> s l3

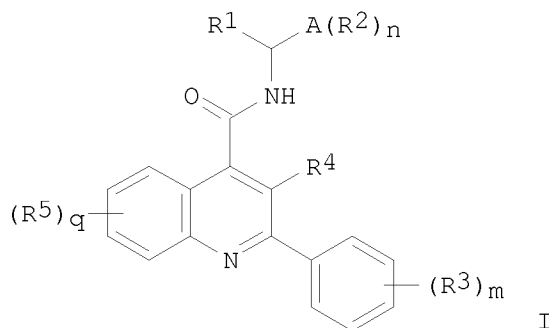
L4 19 L3

=> d ibib abs fhitr 1-19

L4 ANSWER 1 OF 19 CA COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 146:379839 CA  
TITLE: Preparation of 3-(aminomethyl)quinoline-4-carboxamide  
N-oxides as neurokinin-3 (NK-3) receptor ligands  
INVENTOR(S): Campbell, James B.; Albert, Jeffrey S.; Alhambra,  
Cristobal; Kang, James; Koether, Gerard M.; Simpson,  
Thomas R.; Woods, James; Li, Yan  
PATENT ASSIGNEE(S): Astrazeneca AB, Swed.  
SOURCE: PCT Int. Appl., 49pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2007035156	A1	20070329	WO 2006-SE1066	20060919
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 1940795	A1	20080709	EP 2006-799688	20060919
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
IN 2008DN02402	A	20080725	IN 2008-DN2402	20080320
PRIORITY APPLN. INFO.:			US 2005-719287P	P 20050921
			WO 2006-SE1066	W 20060919
OTHER SOURCE(S):	MARPAT 146:379839			
GI				



AB Title compds. [I; R1 = H, (substituted) alkyl, cycloalkyl, alkoxycarbonyl; A = Ph, cycloalkyl; R2 = H, OH, NO2, NH2, cyano, halo, (substituted) alkyl, cycloalkyl alkoxy, alkoxyalkyl; m, n, q = 1-3; R3 = H, OH, NH2, NO2, cyano, halo, (substituted) alkyl, alkoxy, alkoxyalkyl; R4 = E(CH2)p; p = 0-5; E = N+O-R6R7, N-linked N-oxopyrrolidinyl, N-oxopiperidinyl, (substituted) N-oxopiperazinyl, N-oxomorpholinyl; R5 = H, OH, cyano, halo, R6, OR6, SR6, SOR6, SO2R6; R6, R7 = H, alkyl, alkenyl, alkynyl, carbocyclyl], were prepared Thus, pyrrolidine, 3-bromomethyl-2-phenyl-N-[(1S)-1-phenylpropyl]quinoline-4-carboxamide, and diisopropylethylamine were stirred together in CH2Cl2 for 1 h followed by cooling to 0° and multiple treatment with 3-ClC6H4C(O)OOH to give 80% 3-[(1-oxidopyrrolidin-1-yl)methyl]-2-phenyl-N-[(1S)-1-phenylpropyl]quinoline-4-carboxamide.

IT 930281-33-7P

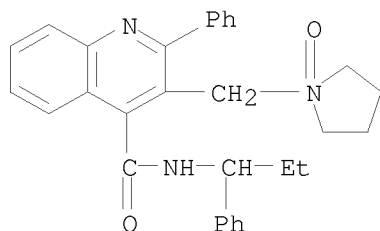
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU

(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(claimed compound; preparation of aminomethylquinolinecarboxamide oxides as  
neurokinin-3 receptor ligands)

RN 930281-33-7 CA

CN 4-Quinolinecarboxamide, 3-[(1-oxido-1-pyrrolidinyl)methyl]-2-phenyl-N-(1-  
phenylpropyl)- (CA INDEX NAME)



REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 146:251747 CA

TITLE: Preparatiion of alkylpyridyl quinolines as NK3  
receptor modulators

INVENTOR(S): Albert, Jeffrey S.; Alhambra, Cristobal; Kang, James;  
Koether, Gerard M.; Simpson, Thomas R.; Woods, James;  
Li, Yan

PATENT ASSIGNEE(S): Astrazeneca AB, Swed.

SOURCE: PCT Int. Appl., 45pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

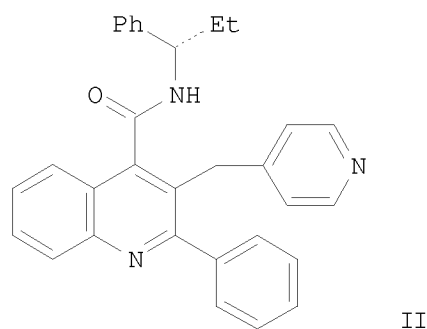
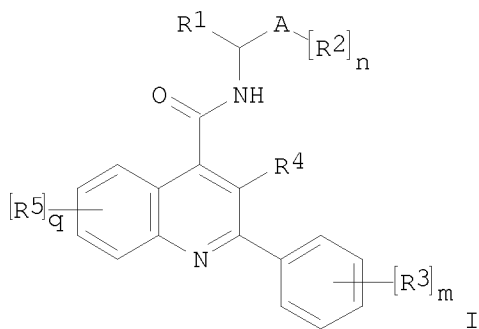
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007018466	A1	20070215	WO 2006-SE935	20060809
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
EP 1915361	A1	20080430	EP 2006-769603	20060809
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR			
IN 2008DN01029	A	20080620	IN 2008-DN1029	20080206
PRIORITY APPLN. INFO.:			US 2005-707383P	P 20050811
			WO 2006-SE935	W 20060809

OTHER SOURCE(S): MARPAT 146:251747  
GI



AB The title compds. I [R1 = H, alkyl, cycloalkyl and alkylOC(O); A = Ph or cycloalkyl; R2 = H, OH, NH2, etc.; n = 1-3; R3 = H, OH, NH2, etc.; m = 1-3; R4 = (CH2)<sub>p</sub>Ar1 (wherein p = 1-6; Ar1 = pyridyl); R5 = H, OH, CN, etc.; q = 1-3], useful for treatment or prophylaxis of a disease or condition in which modulation of the NK-3 receptor is beneficial (no specific data given), were prepared E.g., a multi-step synthesis of II.2TFA, starting from 3-(pyridin-4-yl)propionic acid, was given. Pharmaceutical compns. containing compound I is disclosed.

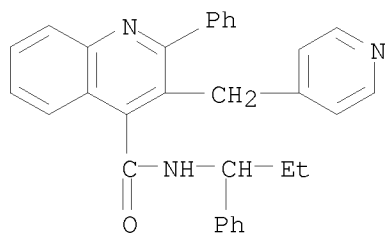
IT 925701-96-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyridylalkyl quinolinecarboxamides as NK3 receptor modulators)

RN 925701-96-8 CA

CN 4-Quinolinecarboxamide, 2-phenyl-N-(1-phenylpropyl)-3-(4-pyridinylmethyl)-  
(CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 19 CA COPYRIGHT 2008 ACS on STN

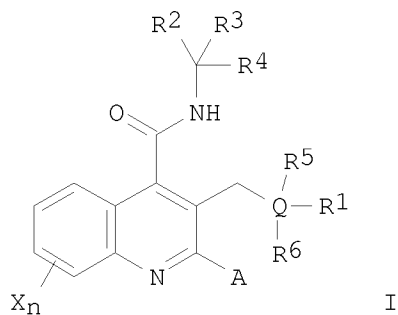
ACCESSION NUMBER: 146:206219 CA

TITLE: Preparation of heterocyclylmethylquinolinecarboxamides as neurokinin receptor antagonists.

INVENTOR(S): Crawforth, James Michael; Williams, Brian John

PATENT ASSIGNEE(S): Merck Sharp & Dohme Limited, UK  
 SOURCE: PCT Int. Appl., 33pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007012900	A1	20070201	WO 2006-GB50221	20060725
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2006273796	A1	20070201	AU 2006-273796	20060725
CA 2616547	A1	20070201	CA 2006-2616547	20060725
EP 1912967	A1	20080423	EP 2006-765370	20060725
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
PRIORITY APPLN. INFO.:			GB 2005-15580	A 20050729
			WO 2006-GB50221	W 20060725
OTHER SOURCE(S):			MARPAT 146:206219	
GI				



AB Title compds. [I; X = F, Cl, Br, iodo; n = 0-2; A = (halo-substituted) Ph, thienyl; Q = C-linked (bridged) azetidiny, pyrrolidinyl, piperidinyl; R1 = N-linked H, alkyl, alkenyl, alkynyl, (substituted) cycloalkyl, aryl, heteroaryl, etc.; R2, R4, R5 = H, alkyl, alkenyl, alkynyl, cycloalkyl; R2R4 = atoms to form cycloalkyl, heterocyclyl; R3 = alkyl, alkenyl, alkynyl, cycloalkyl(alkyl), phenyl(alkyl); R6 = H, OH, O; R1R5 = atoms to form (substituted) N-heterocyclyl], were prepared Thus,

3-[[1-(tert-butoxycarbonyl)piperidin-4-yl]methyl]-8-fluoro-2-phenylquinoline-4-carboxylic acid (preparation given) was added to a mixture prepared from DMF and (COCl)<sub>2</sub> in CH<sub>2</sub>Cl<sub>2</sub> at 0° followed by stirring for 2 h. Et<sub>3</sub>N and (S)-1-phenylpropylamine were added followed by stirring for 16 h at room temperature to give (S)-tert-Bu 4-[[8-fluoro-2-phenyl-4-[[1-(1-phenylpropyl)amino]carbonyl]quinolin-3-yl]methyl]piperidine-1-carboxylate. I normally show NK2 and NK3 binding activity with IC<sub>50</sub>'s of <1 μM.

IT 923023-85-2P

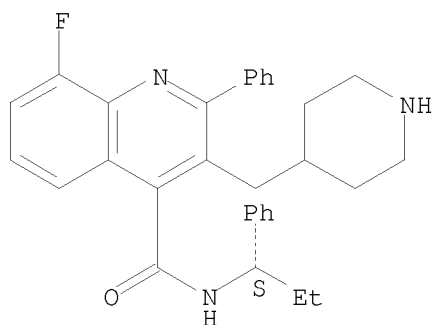
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compound; preparation of heterocyclylmethylquinolinecarboxamides as neurokinin receptor antagonists)

RN 923023-85-2 CA

CN 4-Quinolinecarboxamide, 8-fluoro-2-phenyl-N-[(1S)-1-phenylpropyl]-3-(4-piperidinylmethyl)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 144:488534 CA

TITLE: Preparation of 4-quinolinecarboxamides useful for treatment of central nervous system diseases mediated by modulation of the NK3 receptor

INVENTOR(S): Porter, Roderick Alan; Smith, Paul William

PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA

SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

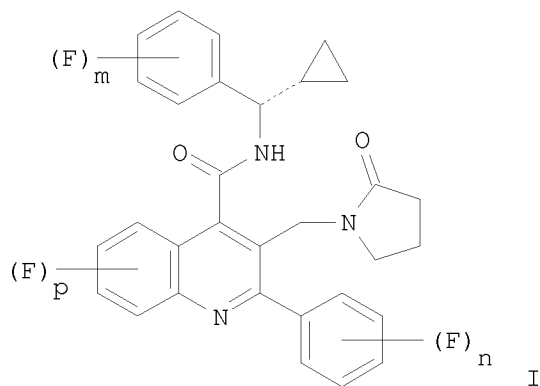
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006050989	A1	20060518	WO 2005-EP12203	20051110
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,				

SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,  
 VN, YU, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ,  
 CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH,  
 GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM  
 EP 1824840 A1 20070829 EP 2005-810209 20051110  
 R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR  
 JP 2008519799 T 20080612 JP 2007-540605 20051110  
 US 20080103173 A1 20080501 US 2007-718910 20071113  
 PRIORITY APPLN. INFO.: GB 2004-25075 A 20041112  
 WO 2005-EP12203 W 20051110  
 OTHER SOURCE(S): MARPAT 144:488534  
 GI



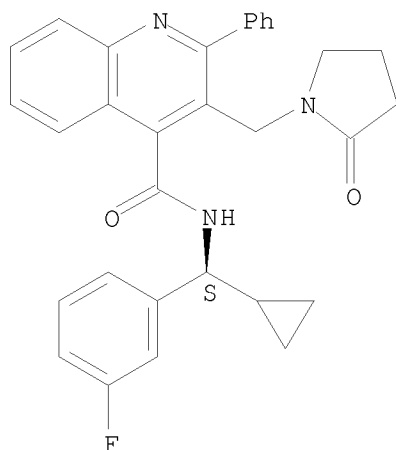
AB 4-Quinolinecarboxamides [I; m, n, p = 0,1; e.g., N-[(S)-cyclopropyl(3-fluorophenyl)methyl]-3-[(2-oxo-1-pyrrolidinyl)methyl]-2-phenyl-4-quinolinecarboxamide; NK3 binding affinity pKi = 8.5], useful for treatment of CNS diseases (e.g., psychosis) mediated by modulation of NK3 receptors, are prepared in a multi-step process.

IT 887330-02-1P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of 4-quinolinecarboxamides useful for treatment of central nervous system diseases mediated by modulation of the NK3 receptor)

RN 887330-02-1 CA  
 CN 4-Quinolinecarboxamide, N-[(S)-cyclopropyl(3-fluorophenyl)methyl]-3-[(2-oxo-1-pyrrolidinyl)methyl]-2-phenyl- (CA INDEX NAME)

Absolute stereochemistry.



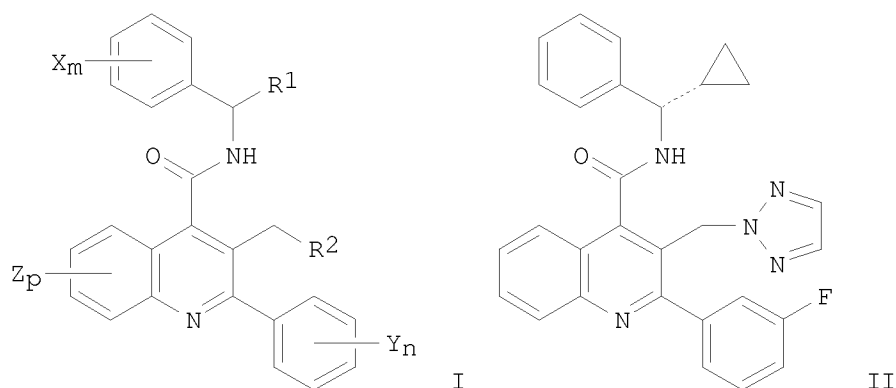


REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 19 CA COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 142:219291 CA  
 TITLE: Preparation of quinoline-4-carboxamide derivatives as neurokinin 3 receptor antagonists  
 INVENTOR(S): Chan, Wai Ngor; Smith, Paul William; Wyman, Paul Adrian  
 PATENT ASSIGNEE(S): Smithkline Beecham Corporation, USA  
 SOURCE: PCT Int. Appl., 42 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005014575	A1	20050217	WO 2004-EP8842	20040805
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1651632	A1	20060503	EP 2004-741382	20040805
R: LT, LV, HR				
JP 2007501826	T	20070201	JP 2006-522966	20040805
US 20070142431	A1	20070621	US 2006-567655	20060718
PRIORITY APPLN. INFO.:			GB 2003-18727	A 20030808
			WO 2004-EP8842	W 20040805
OTHER SOURCE(S):			CASREACT 142:219291; MARPAT 142:219291	

GI



AB Title compds. represented by the formula I [wherein R1 = (cyclo)alkyl or acetyl; R2 = (un)substituted pyrazolyl, triazolyl or tetrazolyl; m, n, p = independently 0-2; X, Y, Z = F; and pharmaceutically acceptable salts, solvates or prodrugs thereof] were prepared as neurokinin 3 (NK3) receptor antagonists. For example, II was given in a multi-step synthesis starting from the reaction of (S)-(+)-valinol with benzaldehyde. I showed binding selectivity to the NK3 receptor in preference to the NK1 and NK2 receptors. Thus, I and their pharmaceutical compns. are useful as medicaments particularly for the treatment of disorders of the central nervous system (CNS) (no data).

IT 844470-31-1P

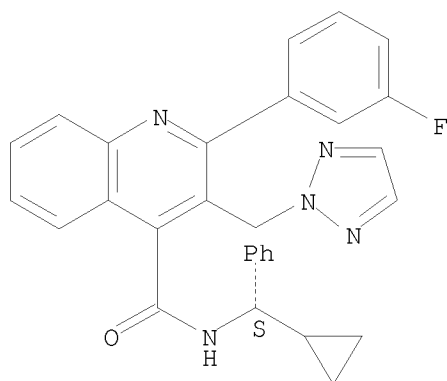
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of triazolyl, pyrazolyl and tetrazolyl quinoline-4-carboxamides as NK3 receptor antagonists)

RN 844470-31-1 CA

CN 4-Quinolinecarboxamide, N-[(S)-cyclopropylphenylmethyl]-2-(3-fluorophenyl)-3-(2H-1,2,3-triazol-2-ylmethyl)-, hydrochloride (1:?) (CA INDEX NAME)

Absolute stereochemistry.



● x HCl

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 19 CA COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 140:71043 CA  
 TITLE: Combination treatment for depression and anxiety by NK1 and NK3 antagonists  
 INVENTOR(S): Sobolov-Jaynes, Susan Beth; Lowe, John Adams, III; McLean, Stafford  
 PATENT ASSIGNEE(S): Pfizer Products Inc., USA  
 SOURCE: PCT Int. Appl., 124 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004000355	A1	20031231	WO 2003-IB2516	20030610
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 20040006135	A1	20040108	US 2003-386582	20030312
CA 2488311	A1	20031231	CA 2003-2488311	20030610
AU 2003239280	A1	20040106	AU 2003-239280	20030610
EP 1517708	A1	20050330	EP 2003-732858	20030610
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			

BR 2003011898	A	20050412	BR 2003-11898	20030610
JP 2005533080	T	20051104	JP 2004-515136	20030610
MX 2005PA00260	A	20050411	MX 2005-PA260	20050103
PRIORITY APPLN. INFO.:			US 2002-389975P	P 20020619
			WO 2003-IB2516	W 20030610

OTHER SOURCE(S): MARPAT 140:71043

AB The invention discloses a method for treating depression or anxiety in a mammal, including a human, by administering to the mammal a CNS-penetrant NK1 receptor antagonist (e. g., a substance P receptor antagonist) in combination with an NK3 antagonist agent. It also relates to pharmaceutical compns. containing a pharmaceutically acceptable carrier, a CNS-penetrant NK1 receptor antagonist and an NK3 antagonist.

IT 216372-53-1

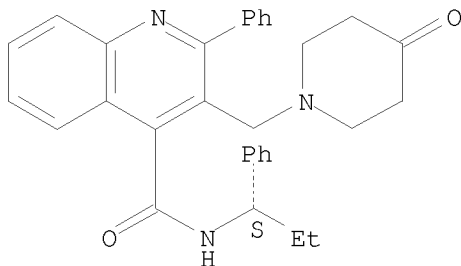
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(NK1 and NK3 antagonist combination treatment for depression and anxiety)

RN 216372-53-1 CA

CN 4-Quinolinecarboxamide, 3-[(4-oxo-1-piperidinyl)methyl]-2-phenyl-N-[(1S)-1-phenylpropyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 138:378520 CA

TITLE: A pharmacophore model for NK2 antagonist comprising compounds from several structurally diverse classes

AUTHOR(S): Poulsen, Anders; Liljefors, Tommy; Gundertofte, Klaus; Bjornholm, Berith

CORPORATE SOURCE: Department of Medicinal Chemistry, The Royal Danish School of Pharmacy, Copenhagen, DK-2100, Den.

SOURCE: Journal of Computer-Aided Molecular Design (2002), 16(4), 273-286

CODEN: JCADEQ; ISSN: 0920-654X

PUBLISHER: Kluwer Academic Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A neurokinin 2 (NK2) antagonist pharmacophore model has been developed on the basis of five non-peptide antagonists from several structurally diverse classes. To evaluate the pharmacophore model, another 20 antagonists were fitted to the model. By use of exhaustive conformational anal. (MMFFs force field and the GB/SA hydration model) and least-squares mol. superimposition studies, 23 of the 25 antagonists were fitted to the

model in a low energy conformation with a low RMS value. The pharmacophore model is described by four pharmacophore elements: Three hydrophobic groups and a hydrogen bond donor represented as a vector. The hydrophobic groups are generally aromatic rings, but this is not a requirement. The antagonists bind in an extended conformation with two aromatic rings in a parallel displaced and tilted conformation. The model was able to explain the enantioselectivity of SR48968 and GR159897.

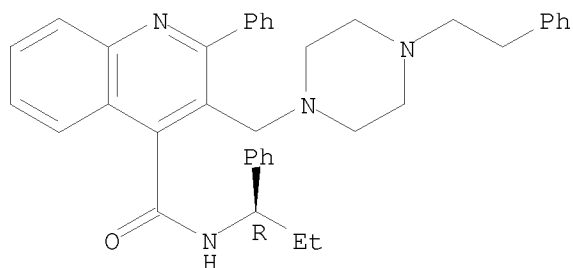
IT 527679-20-5

RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pharmacophore model for NK2 antagonist)

RN 527679-20-5 CA

CN 4-Quinolinecarboxamide, 2-phenyl-3-[[4-(2-phenylethyl)-1-piperazinyl]methyl]-N-[(1R)-1-phenylpropyl]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 137:310826 CA

TITLE: Preparation of quinoline derivatives as NK3 and NK2 receptor antagonists

INVENTOR(S): Farina, Carlo; Giardina, Giuseppe Arnaldo Maria; Grugni, Mario; Perugini, Lorenzo

PATENT ASSIGNEE(S): Glaxosmithkline S.P.A., Italy

SOURCE: PCT Int. Appl., 89 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

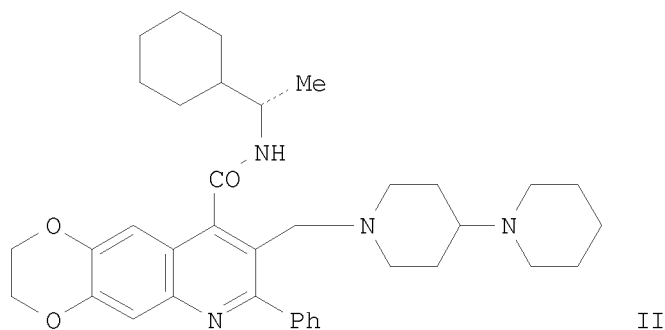
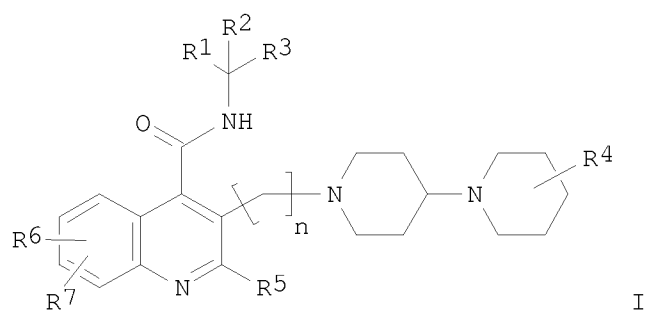
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002083645	A1	20021024	WO 2002-EP4069	20020411
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

AU 2002302528	A1	20021028	AU 2002-302528	20020411
EP 1377555	A1	20040107	EP 2002-730147	20020411
EP 1377555	B1	20070124		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004529145	T	20040924	JP 2002-581402	20020411
AT 352543	T	20070215	AT 2002-730147	20020411
US 20040152730	A1	20040805	US 2004-474556	20040315
US 20050182093	A1	20050818	US 2005-102943	20050411
PRIORITY APPLN. INFO.:			GB 2001-9122	A 20010411
			WO 2002-EP4069	W 20020411
			US 2004-474556	B1 20040315
OTHER SOURCE(S):			MARPAT 137:310826	
GI				



AB Quinoline derivs. of formula I [R1 = H, alkyl; R2 = arylalkyl, etc.; R3 = H, alkyl, cycloalkyl; R4 = H, F; R5 = alkyl, cycloalkyl, aryl, aryl; R6 = H, alkyl, aryl, alkoxy, OH, halo, CN, etc.; R7 = H, alkoxy, halo; R6R7 = alkylenedioxy; n = 1-6] are prepared as NK3 and NK2 receptor antagonists. Thus, II was prepared in several steps. The most potent compds. had IC50 values of 0.1-1000 nM in binding assays on NK3 receptors.

IT 473248-48-5P

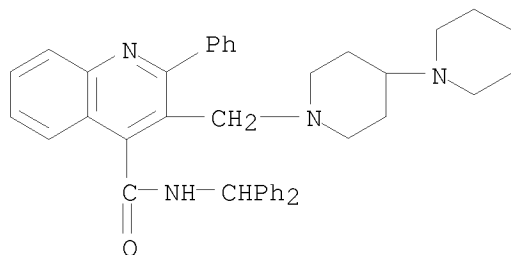
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of quinoline derivs. as NK3 and NK2 receptor antagonists)

RN 473248-48-5 CA

CN 4-Quinolinecarboxamide, 3-([1,4'-bipiperidin]-1'-ylmethyl)-N-

(diphenylmethyl)-2-phenyl- (CA INDEX NAME)



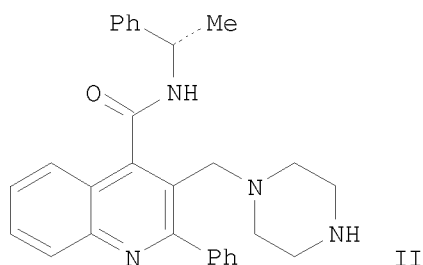
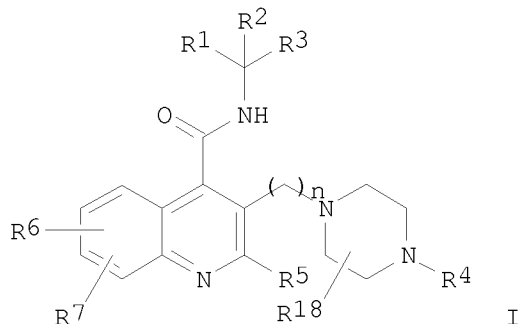
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 9 OF 19 CA COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 137:20387 CA  
 TITLE: Preparation of 3-(piperazinylalkyl)-4-quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders  
 INVENTOR(S): Farina, Carlo; Gagliardi, Stefania; Giardina, Giuseppe; Grugni, Mario; Nadler, Guy Marguerite Marie Gerard; Martinelli, Marisa  
 PATENT ASSIGNEE(S): Glaxosmithkline S.P.A., Italy; Laboratoire Glaxosmithkline S.A.S.  
 SOURCE: PCT Int. Appl., 119 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044165	A1	20020606	WO 2001-EP13833	20011126
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002026356	A	20020611	AU 2002-26356	20011126
EP 1351953	A1	20031015	EP 2001-995670	20011126
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004517082	T	20040610	JP 2002-546535	20011126
US 20040097518	A1	20040520	US 2003-432925	20031124
US 20060223819	A1	20061005	US 2006-425508	20060621
PRIORITY APPLN. INFO.:			GB 2000-28965	A 20001128
			GB 2001-9118	A 20010411
			WO 2001-EP13833	W 20011126
			US 2003-432925	B1 20031124

OTHER SOURCE(S): MARPAT 137:20387

GI



AB Title compds. I [wherein R1 = H or alkyl; R2 = (un)substituted (hetero)aryl or cycloalkyl; R3 = H, alkyl, or cycloalkyl(alkyl) (un)substituted by 1 or more fluorines; R4 = H or R8R9; R5 = branched or linear alkyl, cycloalkyl(alkyl), aryl, or single or fused-ring aromatic (un)substituted heterocyclic group; R6 = H, or 1-3 of alkyl, alkenyl, aryl, alkoxy, OH, halo, NO<sub>2</sub>, cyano, CO<sub>2</sub>H, alkylcarboxy(alkyl), haloalkyl, NH<sub>2</sub>, or (di)(alkyl)amino; or R6 = a bridging alkyl or dioxyalkylene; R7 = H or halo; R8 = (un)substituted alkyl or alkenyl; R9 = S(O<sub>2</sub>)R<sub>10</sub>, S(O<sub>2</sub>)OR<sub>10</sub>, ONO, CO<sub>2</sub>R<sub>10</sub>, CONR<sub>11</sub>R<sub>12</sub>, or CN; R<sub>10</sub> = H, (cyclo)alkyl, or aryl; R<sub>11</sub> and R<sub>12</sub> = independently H or alkyl; R<sub>18</sub> = H or up to 3 oxo groups; any of R2, R5, R8, R<sub>10</sub>, R<sub>11</sub>, or R<sub>12</sub> may be (un)substituted 1 or more times by halo, OH, NH<sub>2</sub>, cyano, NO<sub>2</sub>, CO<sub>2</sub>H, or oxo; n = 1-6; with 26 compds. excluded; and their pharmaceutically acceptable salts or hydrates] were prepared I are a novel class of potent non-peptide neurokinin-3 (NK-3) antagonists, some of which fall within the generic scope of WO 00/31037. I are far more stable metabolically and show improved oral bioavailability compared to the known peptidic NK-3 receptor antagonists (no data). In addition, I have good NK-2 antagonist activity and are considered to be of potential use in the prevention and treatment of a wide variety of clin. conditions which are characterized by over-stimulation of tachykinin receptors, in particular NK-3 and NK-2. Forty-eight specific (S)-isomeric compds. I were prepared For instance, 4-carboxy-3-methyl-2-phenylquinoline was subjected to the sequence of (1) Me esterification; (2)  $\alpha$ -bromination; (3) amination of the bromide with piperazine-1-carboxylic acid tert-Bu ester; (4) ester hydrolysis (95%); and (5) amidation with (S)-1-phenylethylamine to give the title compound II.



In binding assays using human NK-2 receptors and guinea pig and human NK-3 receptors, the most potent I exhibited IC<sub>50</sub> values ranging from 0.5 nM to 1000 nM and from 0.1 nM to 1000 nM, resp.

IT 425622-13-5P

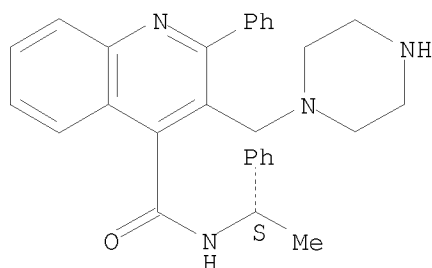
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(NT-2 and NT-3 receptor antagonist; preparation of piperazinylalkyl quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders)

RN 425622-13-5 CA

CN 4-Quinolinecarboxamide, 2-phenyl-N-[(1S)-1-phenylethyl]-3-(1-piperazinylmethyl)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 10 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 137:20302 CA

TITLE: Preparation of 3-(piperidinylalkyl)-4-quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders

INVENTOR(S): Farina, Carlo; Giardina, Giuseppe; Grugni, Mario; Nadler, Guy Marguerite Marie Gerard

PATENT ASSIGNEE(S): Glaxosmithkline S.P.A., Italy; Laboratoire Glaxosmithkline S.A.S.

SOURCE: PCT Int. Appl., 91 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

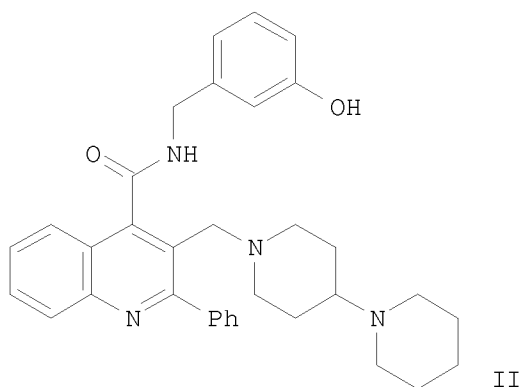
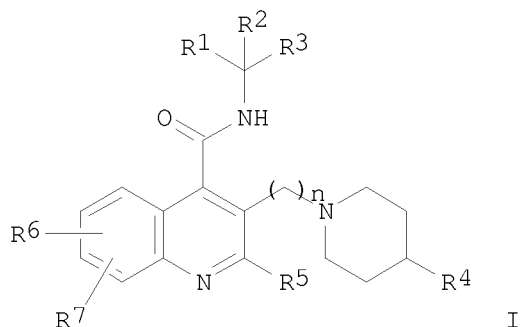
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002044154	A1	20020606	WO 2001-EP13832	20011126
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,				

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 AU 2002016060 A 20020611 AU 2002-16060 20011126  
 EP 1339691 A1 20030903 EP 2001-998541 20011126  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
 JP 2004517079 T 20040610 JP 2002-546524 20011126  
 US 20040102633 A1 20040527 US 2003-433595 20030925  
 US 20050070574 A1 20050331 US 2004-949185 20040924  
 US 20060161004 A1 20060720 US 2006-331623 20060113  
 PRIORITY APPLN. INFO.: GB 2000-28964 A 20001128  
 WO 2001-EP13832 W 20011126  
 US 2003-433595 B1 20030925  
 US 2004-949185 B1 20040924

OTHER SOURCE(S): MARPAT 137:20302  
 GI



AB Title compds. I [wherein R1 = H or alkyl; R2 = R8R9; R3 = H or (un)substituted alkyl or cycloalkyl(alkyl); R4 = NR10R11; R5 = (un)substituted alkyl, cycloalkyl(alkyl), aryl, or single or fused-ring aromatic heterocyclic group; R6 = H, or 1-3 of alkyl, alkenyl, aryl, alkoxy, OH, halo, NO2, cyano, CO2H, carboxamido, sulfonamido, alkoxycarbonyl, haloalkyl, acyloxy, (di)(alkyl)amino, alkoxyamido, alkoxycarboxylate, or an esterified derivative thereof; R7 = H or halo; n = 1-6; R8 = single bond or (un)substituted alkyl; R9 = (un)substituted cycloalkyl or (hetero)aryl; R10 and R11 = independently H or alkyl; or NR10R11 = (un)substituted, (un)saturated heterocycle; any of R1, R3, R5, R8, R9, R10, R11, or R12 may be (un)substituted 1 or more times by halo, OH, NH2, cyano, NO2, CO2H, or

oxo; with 20 compds. excluded; and their pharmaceutically acceptable salts or hydrates] were prepared I are a novel class of potent non-peptide neurokinin-3 (NK-3) antagonists, some of which fall within the generic scope of WO 00/31037. I are far more stable metabolically and show improved oral bioavailability compared to the known peptidic NK-3 receptor antagonists (no data). In addition, I have good NK-2 antagonist activity and are considered to be of potential use in the prevention and treatment of a wide variety of clin. conditions which are characterized by over-stimulation of tachykinin receptors, in particular NK-3 and NK-2. Thirty-three specific compds. I were prepared For instance, 3-bromomethyl-2-phenylquinoline-4-carboxylic acid Me ester (preparation given) was subjected to the sequence of (1) amination of the bromide with 4-piperidinopiperidine (56%), (2) acid hydrolysis of the ester, (3) amidation with 3-hydroxybenzylamine (20.6%) to give the title compound II. In binding assays using human NK-2 and NK-3 receptors, the most potent I exhibited IC50 values ranging from 0.5 nM to 1000 nM and 0.1 nM to 1000 nM, resp.

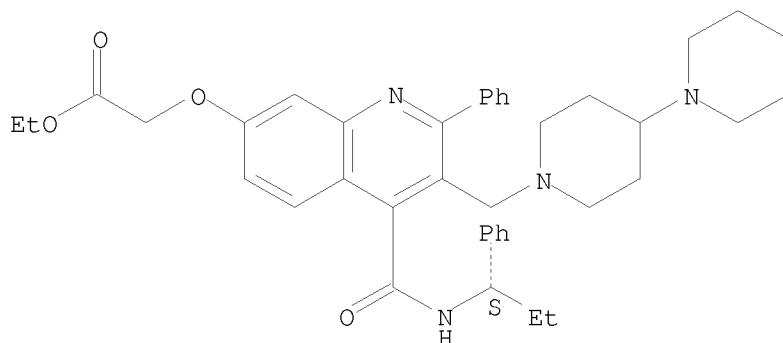
IT 433980-91-7P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(NK-2 and NK-3 receptor antagonist; preparation of piperidinylalkyl quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders)

RN 433980-91-7 CA

CN Acetic acid, 2-[[3-([1,4'-bipiperidin]-1'-ylmethyl)-2-phenyl-4-[[[(1S)-1-phenylpropyl]amino]carbonyl]-7-quinolinyl]oxy]-, ethyl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 11 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 137:6099 CA

TITLE: Preparation of 3-(piperidinylalkyl)-4-quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders

INVENTOR(S): Farina, Carlo; Giardina, Giuseppe; Grugni, Mario; Nadler, Guy Marguerite Marie Gerard

PATENT ASSIGNEE(S): Glaxosmithkline S.P.A., Italy; Laboratoire Glaxosmithkline S.A.S.

SOURCE: PCT Int. Appl., 62 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002043734	A1	20020606	WO 2001-EP14140	20011127
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002021923	A5	20020611	AU 2002-21923	20011127
EP 1337253	A1	20030827	EP 2001-998350	20011127
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
JP 2004519432	T	20040702	JP 2002-545704	20011127
PRIORITY APPLN. INFO.:			GB 2000-28963	A 20001128
			GB 2001-9120	A 20010411
			WO 2001-EP14140	W 20011127
OTHER SOURCE(S):	MARPAT 137:6099			
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB Title compds. I [wherein R1 = H or alkyl; R2 = (hetero)aryl or cycloalkyl; R3 = H or alkyl, (un)substituted by 1 or more fluorines; R4 = NR8R9 or R12; R5 = branched or linear alkyl, cycloalkyl(alkyl), aryl, or single or fused-ring aromatic heterocyclic group; R6 = H, or 1-3 of alkyl, alkenyl, aryl, alkoxy, OH, halo, NO2, cyano, CO2H, carboxamido, sulfonamido, alkoxy carbonyl, CF3, acyloxy, or (di)(alkyl)amino; R7 = H or halo; n = 1-6; R8 = H or Me; R9 = H, (cyclo)alkyl, aryl, or R10R11; or R8R9 form an (un)substituted heterocyclic ring; R10 = (cyclo)alkyl or aryl; R11 = carboxy or alkylcarboxy; R12 = R13 or OR13; R13 = H or alkyl or aryl, (un)substituted by 1 or more fluorines; any of R2, R5, R9, and R10 may be (un)substituted 1 or more times by halo, OH, NH2, cyano, NO2, CO2H, or oxo; with 1 compound excluded; and their pharmaceutically acceptable salts or hydrates] were prepared I are a novel class of potent non-peptide neurokinin-3 (NK-3) antagonists, some of which fall within the generic scope of WO 00/31037. I are far more stable metabolically and show improved oral bioavailability compared to the known peptidic NK-3 receptor antagonists (no data). In addition, I have good NK-2 antagonist activity and are considered to be of potential use in the prevention and treatment of a wide variety of clin. conditions which are characterized by over-stimulation of tachykinin receptors, in particular NK-3 and NK-2. Eleven specific (S)-isomeric compds. I were prepared, and their general stereochem. forms are claimed. For instance, 3-methyl-2-phenylquinoline-4-

carbonyl chloride (6-step preparation given) was subjected to a sequence of (1) t-Bu esterification (17.2%), (2)  $\alpha$ -bromination (80%), (3) amination of the bromide with 4-[(1-piperidin-4-ylmethanoyl)amino]benzoic acid Et ester (80%), (4) ester hydrolysis, and (5) amidation with (S)-(+)-1-cyclohexylethylamine (90%) to give the title compound II. In binding assays using human NK-2 receptors, the most potent I had IC<sub>50</sub> values ranging from 0.5 nM to 1000 nM.

IT 433712-73-3P

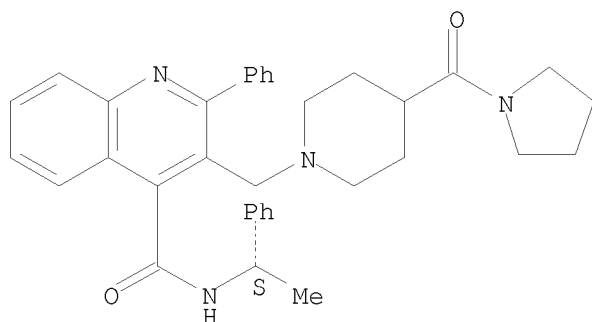
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(NK-3 and NK-2 antagonist; preparation of piperidinylalkyl quinolinecarboxamides as NK-3 and NK-2 antagonists for treatment of respiratory diseases and CNS disorders)

RN 433712-73-3 CA

CN 4-Quinolinecarboxamide, 2-phenyl-N-[(1S)-1-phenylethyl]-3-[[4-(1-pyrrolidinylcarbonyl)-1-piperidinyl]methyl]- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 12 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 136:386030 CA

TITLE: Quinoline derivatives as NK-3 and NK-2 antagonists

INVENTOR(S): Farina, Carlo; Gagliardi, Stefania; Giardina, Giuseppe; Grugni, Mario; Martinelli, Marisa; Nadler, Guy Marguerite Marie Gerard

PATENT ASSIGNEE(S): Glaxosmithkline S.p.A., Italy; Laboratoire Glaxosmithkline

SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

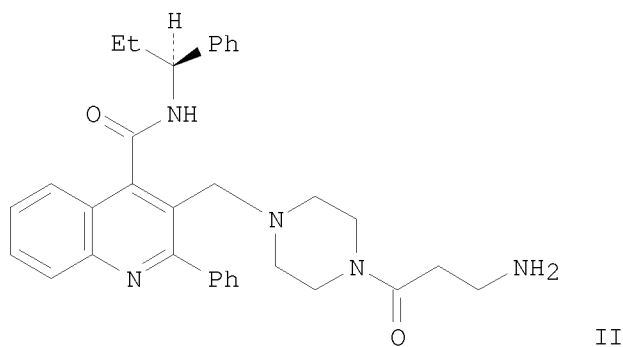
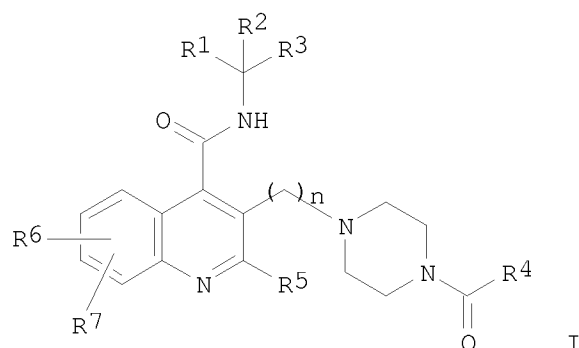
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002038547	A1	20020516	WO 2001-EP13139	20011112
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL,  
PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG,  
US, UZ, VN, YU, ZA, ZW  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,  
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,  
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
AU 2002020702 A 20020521 AU 2002-20702 20011112  
EP 1334089 A1 20030813 EP 2001-993602 20011112  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR  
JP 2004517062 T 20040610 JP 2002-541083 20011112  
US 20040082589 A1 20040429 US 2003-416596 20031023  
US 20070015766 A1 20070118 US 2006-426414 20060626  
PRIORITY APPLN. INFO.: GB 2000-27696 A 20001113  
GB 2001-9119 A 20010411  
WO 2001-EP13139 W 20011112  
US 2003-416596 B1 20031023  
OTHER SOURCE(S): MARPAT 136:386030  
GI



AB Title compds. I and their pharmaceutically acceptable salts or hydrates are claimed [wherein: R1 = H or alkyl; R2 = aryl, cycloalkyl, or heteroaryl; R3 = H or C1-3 alkyl, (un)substituted by 1 or more fluorines; R4 = H, R8NR9R10, R11R13, or R11R12R13; R5 = branched or linear alkyl, cycloalkyl(alkyl), aryl(alkyl), or single or fused-ring aromatic heterocyclic group; R6 = H, or 1-3 of alkyl, alkenyl, aryl, alkoxy, OH, halo, NO2, cyano, CO2H, carboxamido, sulfonamido, alkoxycarbonyl, CF3, acyloxy,

(di)(alkyl)amino; R7 = H, halo; n = 1-6; R8 = bond or alkylene; R9, R10 = H, alkyl, cycloalkyl(alkyl), aryl(alkyl); or NR9R10 = (un)saturated (fluoro)heterocyclyl; R11 = alkyl, alkenyl, (hetero)aryl, (un)saturated carbocyclyl with  $\geq 1$  N/O/S atom(s), cycloalkyl, etc.; R12 = (un)substituted alkyl, alkoxy; R13 = H, CO2R14; R14 = H, alkyl; any of R2, R5, R8, R9, R10, R11, R12, and R14 may be substituted by halo, OH, amino, cyano, NO2, CO2H, or oxo; with specific exclusion of 14 compds.]. Also claimed is a process for preparing the compds., pharmaceutical compns. comprising them, and their use in medicine. I are a novel class of potent non-peptide NK-3 antagonists, some of which fall within the generic scope of WO 00/31037. I are also far more stable from a metabolic point of view than the known peptidic NK-3 receptor antagonists (no data), and are of potential therapeutic utility. I also have good NK-2 antagonist activity, and are therefore considered to be of potential use in the prevention and treatment of a wide variety of clin. conditions which are characterized by overstimulation of tachykinin receptors, in particular NK-3 and NK-2. I also show improved oral bioavailability (no data). Approx. 25 specific (S)-isomeric compds. I were prepared, and their general stereochem. forms are claimed. For instance, 3-methyl-2-phenylquinoline-4-carboxylic acid was subjected to a sequence of: (1) Me esterification; (2)  $\alpha$ -bromination; (3) amination of the bromide with Fmoc-piperazine; (4) ester hydrolysis; (5) amidation with (S)-1-phenylpropylamine; (6) deprotection at Fmoc; (7) coupling with N-BOC- $\beta$ -alanine; and (8) deprotection at BOC; to give title compound II, isolated as the di-HCl salt. In binding assays using human and guinea pig NK-3 receptors, and human NK-2 receptors, the most potent I had IC50 values in the range of 0.1-1000 nM for NK-3, and 0.5-1000 nM for NK-2. Antagonist behavior of I at NK-3 receptors was evidenced by reversal of the effects of senktide and NKB, and antagonist activity at NK-2 receptors was indicated by reversal of the effects of NKA.

IT 425621-62-1P, (-)-(S)-N-(1-Phenylpropyl)-3-[[4-(3-aminopropionyl)piperazin-1-yl]methyl]-2-phenylquinoline-4-carboxamide dihydrochloride

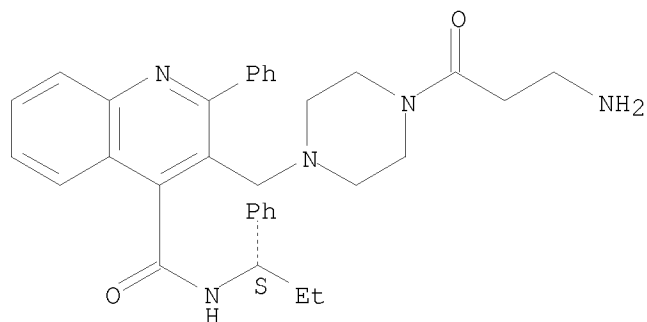
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of quinoline derivs. as NK-3 and NK-2 antagonists)

RN 425621-62-1 CA

CN 4-Quinolinecarboxamide, 3-[[4-(3-amino-1-oxopropyl)-1-piperazinyl]methyl]-2-phenyl-N-[(1S)-1-phenylpropyl]-, hydrochloride (1:2) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● 2 HCl

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 19 CA COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 136:369740 CA  
 TITLE: Preparation of piperazinylalkylquinoline-4-carboxamides as NK-3 and NK-2 receptor antagonists  
 INVENTOR(S): Farina, Carlo; Giardina, Giuseppe; Grugni, Mario; Nadler, Guy Marguerite Marie Gerard  
 PATENT ASSIGNEE(S): Glaxosmithkline S.p.A., Italy; Laboratoire Glaxosmithkline S.A.S.  
 SOURCE: PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

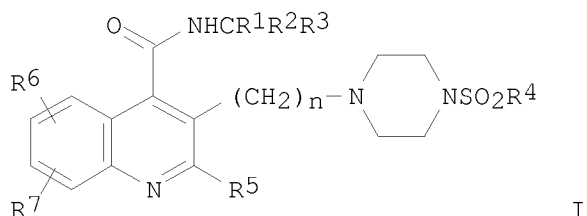
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002038548	A1	20020516	WO 2001-EP13141	20011112
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002015043	A	20020521	AU 2002-15043	20011112
EP 1334088	A1	20030813	EP 2001-983584	20011112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004513165	T	20040430	JP 2002-541084	20011112
US 20040077658	A1	20040422	US 2003-416600	20031023
US 20060235026	A1	20061019	US 2006-425434	20060621
PRIORITY APPLN. INFO.:			GB 2000-27701	A 20001113



WO 2001-EP13141  
US 2003-416600

W 20011112  
B1 20031023

OTHER SOURCE(S): MARPAT 136:369740  
GI



AB Title compds. [I; R1 = H, alkyl; R2 = aryl, cycloalkyl, heteroaryl; R3 = H, alkyl, optionally substituted by  $\geq 1$  F; R4 = R8R9; R8 = bond, alkyl, aryl; R9 = H, COO R10, NR11R12; R10 = H, alkyl; R11, R12 = H, alkyl; R5 = alkyl, cycloalkyl, cycloalkylalkyl, aryl, single or fused ring heteroaryl; R6 = H, alkyl, alkenyl, aryl, alkoxy, OH, halo, NO2, cyano, carboxy, carboxamido, sulfonamido, alkoxycarbonyl, CF3, acyloxy, amino; R7 = H, halo; n = 1-6; any of R2, R5, R8, R10, R11, R12 may be substituted by halo, hydroxy, amino, cyano, NO2, CO2H, oxo], were prepared Thus, 2-phenyl-3-piperazin-1-ylmethylquinoline-4-carboxylic acid ((S)-2-methyl-1-phenylpropyl)amide (preparation given) in MeCN was treated with EtO2CCH2CH2SO2Cl and diisopropylethylamine; the mixture was stirred 15 h at room temperature and for 3 h at 50° to give 3-[4-[4-((S)-2-methyl-1-phenylpropylcarbonyl)-2-phenylquinolin-3-ylmethyl]piperazine-1-sulfonyl]propionic acid Me ester. The most potent I bind to NK-2 receptors with IC50 = 0.5-1000 nM.

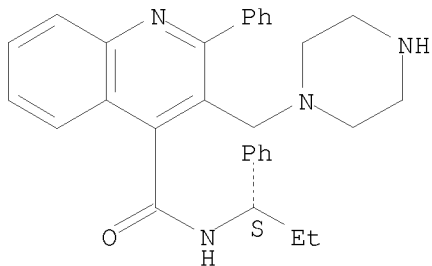
IT 216372-65-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of)

RN 216372-65-5 CA

CN 4-Quinolinecarboxamide, 2-phenyl-N-[(1S)-1-phenylpropyl]-3-(1-piperazinylmethyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT:

1

THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 136:273215 CA  
 TITLE: Combination of an NK-3 receptor antagonist and a  
 CNS-penetrant NK-1 receptor antagonist for treating  
 depression and anxiety  
 INVENTOR(S): Lowe, John Adams, III; McLean, Stafford;  
 Sobolov-Jaynes, Susan Beth  
 PATENT ASSIGNEE(S): Pfizer Products Inc., USA  
 SOURCE: Eur. Pat. Appl., 65 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1192952	A2	20020403	EP 2001-307657	20010910
EP 1192952	A3	20030326		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
CA 2357901	A1	20020328	CA 2001-2357901	20010926
MX 2001PA09787	A	20020415	MX 2001-PA9787	20010927
BR 2001004345	A	20020521	BR 2001-4345	20010928
JP 2002338497	A	20021127	JP 2001-300136	20010928
PRIORITY APPLN. INFO.:			US 2000-236375P	P 20000928

OTHER SOURCE(S): MARPAT 136:273215

AB A composition for the treatment of anxiety or depression in a mammal, including a human, comprises (a) an NK-3 receptor antagonist or its salt, (b) a CNS-penetrant NK-1 receptor antagonist or its salt, and (c) a pharmaceutically acceptable carrier. When administered in combination, either as a single or as sep. pharmaceutical composition(s), the CNS-penetrant NK-1 receptor antagonist and an NK-3 antagonist, are presented in a ratio which is consistent with the manifestation of the desired effect. In particular, the ratio by weight of the CNS-penetrant NK-1 receptor antagonist and the NK-3 antagonist will suitably be between 0.001:1 to 1000:1, and especially between 0.01:1 and 100:1.

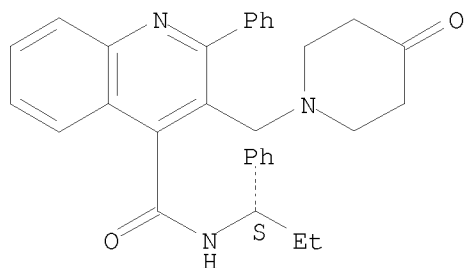
IT 216372-53-1

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (combination of NK3 receptor antagonist and CNS-penetrant NK1 receptor antagonist for treating depression and anxiety)

RN 216372-53-1 CA

CN 4-Quinolinecarboxamide, 3-[(4-oxo-1-piperidinyl)methyl]-2-phenyl-N-[(1S)-1-phenylpropyl]- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L4 ANSWER 15 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 135:55462 CA

TITLE: Stepwise modulation of neurokinin-3 and neurokinin-2  
receptor affinity and selectivity in quinoline  
tachykinin receptor antagonistsAUTHOR(S): Blaney, Frank E.; Raveglia, Luca F.; Artico, Marco;  
Cavagnera, Stefano; Dartois, Catherine; Farina, Carlo;  
Grugni, Mario; Gagliardi, Stefania; Luttmann, Mark A.;  
Martinelli, Marisa; Nadler, Guy M. M. G.; Parini,  
Carlo; Petrillo, Paola; Sarau, Henry M.; Scheideler,  
Mark A.; Hay, Douglas W. P.; Giardina, Giuseppe A. M.CORPORATE SOURCE: Department of Computational Structural Sciences,  
SmithKline Beecham Pharmaceuticals, Harlow Essex, CM19  
5AW, UKSOURCE: Journal of Medicinal Chemistry (2001), 44(11),  
1675-1689

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A stepwise chemical modification from human neurokinin-3 receptor (hNK-3R)-selective antagonists to potent and combined hNK-3R and hNK-2R antagonists using the same 2-phenylquinoline template is described. Docking studies with 3-D models of the hNK-3 and hNK-2 receptors were used to drive the chemical design and speed up the identification of potent and combined antagonists at both receptors. (S)-(+)-N-(1-Cyclohexylethyl)-3-[(4-morpholin-4-yl)piperidin-1-yl]methyl-2-phenylquinoline-4-carboxamide (SB-400238: hNK-3R binding affinity,  $K_i$  = 0.8 nM; hNK-2R binding affinity,  $K_i$  = 0.8 nM) emerged as the best example in this approach. Further studies led to the identification of (S)-(+)-N-(1,2,2-trimethylpropyl)-3-[(4-piperidin-1-yl)piperidin-1-yl]methyl-2-phenylquinoline-4-carboxamide (SB-414240: hNK-3R binding affinity,  $K_i$  = 193 nM; hNK-2R binding affinity,  $K_i$  = 1.0 nM) as the first hNK-2R-selective antagonist belonging to the 2-phenylquinoline chemical class. Since some members of this chemical series showed a significant binding affinity for the human  $\mu$ -opioid receptor (hMOR), docking studies were also conducted on a 3-D model of the hMOR, resulting in the identification of a viable chemical strategy to avoid any significant  $\mu$ -opioid component. Compds. SB-400238 and SB-414240 are therefore suitable pharmacol. tools in the tachykinin area to elucidate further the pathophysiol. role of NK-3 and NK-2 receptors and the therapeutic potential of selective NK-2 (SB-400238) or combined NK-3 and NK-2 (SB-414240) receptor antagonists.

IT 216372-65-5P

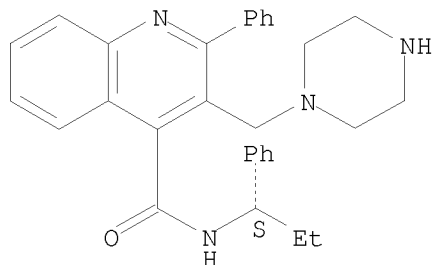
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(stepwise modulation of neurokinin-3 and NK-2 receptor affinity and selectivity in quinoline tachykinin receptor antagonists)

RN 216372-65-5 CA

CN 4-Quinolinecarboxamide, 2-phenyl-N-[(1S)-1-phenylpropyl]-3-(1-piperazinylmethyl)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 133:114594 CA

TITLE: Predicting blood-brain barrier permeation from three-dimensional molecular structure

AUTHOR(S): Crivori, Patrizia; Cruciani, Gabriele; Carrupt, Pierre-Alain; Testa, Bernard

CORPORATE SOURCE: Institute of Medicinal Chemistry, University of Lausanne, Lausanne-Dorigny, CH-1015, Switz.

SOURCE: Journal of Medicinal Chemistry (2000), 43(11), 2204-2216

CODEN: JMCMAR; ISSN: 0022-2623

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

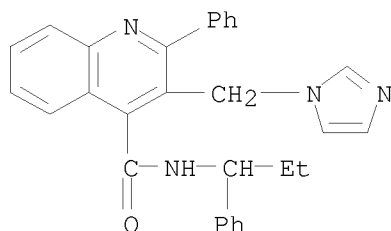
AB Predicting blood-brain barrier (BBB) permeation remains a challenge in drug design. Since it is impossible to determine exptl. the BBB partitioning of large nos. of preclin. candidates, alternative evaluation methods based on computerized models are desirable. The present study was conducted to demonstrate the value of descriptors derived from 3D mol. fields in estimating the BBB permeation of a large set of compds. and to produce a simple math. model suitable for external prediction. The method used (VolSurf) transforms 3D fields into descriptors and correlates them to the exptl. permeation by a discriminant partial least squares procedure. The model obtained here correctly predicts more than 90% of the BBB permeation data. By quantifying the favorable and unfavorable contributions of physicochem. and structural properties, it also offers valuable insights for drug design, pharmacol. profiling, and screening. The computational procedure is fully automated and quite fast. The method thus appears as a valuable new tool in virtual screening where selection or prioritization of candidates is required from large collections of compds.

IT 285988-50-3

RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (blood-brain barrier permeation prediction from 3D mol. structure)

RN 285988-50-3 CA

CN 4-Quinolinecarboxamide, 3-(1H-imidazol-1-ylmethyl)-2-phenyl-N-(1-phenylpropyl)- (CA INDEX NAME)



REFERENCE COUNT: 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 17 OF 19 CA COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 133:4605 CA

TITLE: Preparation of quinoline-4-carboxamide derivatives as NK-3 and NK-2 receptor antagonists

INVENTOR(S): Farina, Carlo; Giardina, Giuseppe; Grugni, Mario; Morvan, Marcel; Nadler, Guy Margueritte Marie Gerard; Raveglia, Luca Francesco

PATENT ASSIGNEE(S): Smithkline Beecham S.P.A., Italy; Smithkline Beecham Laboratoires Pharmaceutiques

SOURCE: PCT Int. Appl., 84 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

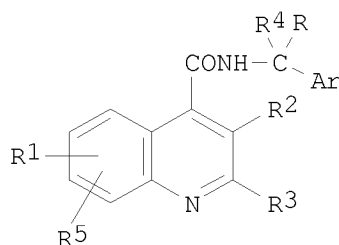
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000031037	A1	20000602	WO 1999-EP9115	19991119
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
IN 1996DE02569	A	20050311	IN 1996-DE2569	19961122
CA 2351865	A1	20000602	CA 1999-2351865	19991119
EP 1131295	A1	20010912	EP 1999-961001	19991119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200101412	T2	20011022	TR 2001-1412	19991119
BR 9915475	A	20011218	BR 1999-15475	19991119
HU 2001004959	A2	20020429	HU 2001-4959	19991119
HU 2001004959	A3	20030128		
NZ 511777	A	20031219	NZ 1999-511777	19991119
AU 768708	B2	20040108	AU 2000-17770	19991119
NO 2001002473	A	20010718	NO 2001-2473	20010518
ZA 2001004071	A	20030107	ZA 2001-4071	20010518
MX 2001PA05095	A	20020424	MX 2001-PA5095	20010521
US 20030212101	A1	20031113	US 2003-358938	20030205
US 6780875	B2	20040824		

## PRIORITY APPLN. INFO.:

GB 1998-25552	A 19981120
GB 1998-25553	A 19981120
WO 1999-EP9115	W 19991119
US 2001-856085	B1 20010904
US 2002-159218	B1 20020531

OTHER SOURCE(S): MARPAT 133:4605

GI



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AB The title compds. of formula I [Ar = optionally substituted aryl or a C5-7 cycloalkdienyl group, or an optionally substituted C5-7 cycloalkyl group, or an optionally substituted single or fused ring aromatic heterocyclic group; R = H, linear or branched C1-6 alkyl, C3-7 cycloalkyl, C3-7 cycloalkylalkyl, R1 = H or up to three optional substituents selected from the list consisting of: C1-6 alkyl, C1-6 alkenyl, aryl, C1-6 alkoxy, OH, halogen, NO<sub>2</sub>, CN, etc; R2 = (CH<sub>2</sub>)<sub>n</sub>NY<sub>1</sub>Y<sub>2</sub>; n = an integer ranging from 1 - 9; Y<sub>1</sub>, Y<sub>2</sub> independently = (un)substituted C1-6 alkyl or together with N to which they are attached represent optionally substituted N linked single or fused ring heterocyclic group; R3 = branched or linear C1-6 alkyl, C3-7 cycloalkyl, C4-7 cycloalkyl, etc; R4 = H, C1-6 alkyl; R5 = H, halogen] useful as NK-3 and NK-2 receptor antagonists (no data given) are prepared

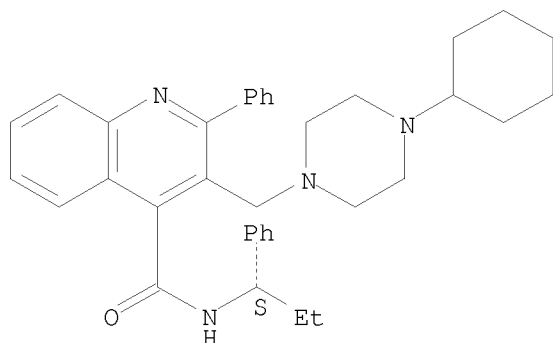
IT 270573-00-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of quinoline-4-carboxamide derivs. as NK-3 and NK-2 receptor antagonists)

RN 270573-00-7 CA

CN 4-Quinolinecarboxamide, 3-[(4-cyclohexyl-1-piperazinyl)methyl]-2-phenyl-N-[(1S)-1-phenylpropyl]-, hydrochloride (1:2) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



● 2 HCl

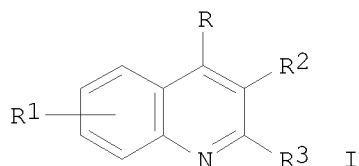
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 18 OF 19 CA COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 130:24978 CA  
 TITLE: Preparation of quinoline-4-carboxamides as NK2 and NK3 receptor antagonists  
 INVENTOR(S): Giardina, Giuseppe Arnaldo Maria; Grugni, Mario; Graziani, Davide; Raveglia, Luca Francesco  
 PATENT ASSIGNEE(S): Smithkline Beecham S.p.A., Italy  
 SOURCE: PCT Int. Appl., 50 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9852942	A1	19981126	WO 1998-EP3014	19980518
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2291111	A1	19981126	CA 1998-2291111	19980518
AU 9882098	A	19981211	AU 1998-82098	19980518
EP 983262	A1	20000308	EP 1998-932069	19980518
EP 983262	B1	20030709		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO				
TR 9902883	T2	20000522	TR 1999-2883	19980518
HU 2000002300	A2	20010628	HU 2000-2300	19980518
HU 2000002300	A3	20020128		
BR 9809652	A	20010911	BR 1998-9652	19980518

JP 2002500645	T	20020108	JP 1998-549967	19980518
AT 244711	T	20030715	AT 1998-932069	19980518
ES 2201509	T3	20040316	ES 1998-932069	19980518
ZA 9804303	A	19991122	ZA 1998-4303	19980521
NO 9905711	A	20000119	NO 1999-5711	19991122
MX 9910841	A	20000731	MX 1999-10841	19991123
US 20010012846	A1	20010809	US 2000-731190	20001206
US 20030004183	A1	20030102	US 2002-52925	20020116
US 20040116469	A1	20040617	US 2003-721644	20031125
US 20050159428	A1	20050721	US 2005-85028	20050314
US 20060205735	A1	20060914	US 2006-418274	20060504
US 20070197546	A1	20070823	US 2007-691899	20070327
PRIORITY APPLN. INFO.:			GB 1997-10750	A 19970523
			IT 1997-MI2354	A 19971017
			IT 1997-MI2775	A 19971216
			WO 1998-EP3014	W 19980518
			US 1999-424122	B1 19991117
			US 2000-731190	A1 20001206
			US 2002-52925	A1 20020116
			US 2003-721644	B1 20031125
			US 2005-85028	B1 20050314
			US 2006-418274	A1 20060504

OTHER SOURCE(S):            MARPAT 130:24978  
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AB Title compds. [I; R = CONHCR4R5R6; R1 = H or 1-4 of halo, alkyl, alkoxy, aryl, etc.; R2 = (CH2)nNY1Y2; R3 = (cyclo)alkyl, (hetero)aryl, etc.; R4 = H or alkyl; R5 = (cyclo)alkyl, Ph, heteroaryl, etc.; R6 = cycloalk(adien)yl or (hetero)aryl; Y1,Y2 = H, alkyl, aryl, etc.; NY1Y2 = heterocyclyl] were prepared Thus, 3-methyl-2-phenyl-4-carboxylic acid was  $\alpha$ -brominated and the product aminated by L-proline Me ester to give I [R1 = H, R2 = (S)-2-methoxycarbonyl-1-pyrrolidinylmethyl, R3 = Ph] (II; R = CO2H) which was amidated by (S)-EtCHPhNH2 to give II [R = (S)-CONHCHPhEt]. Data for biol. activity of I were given.

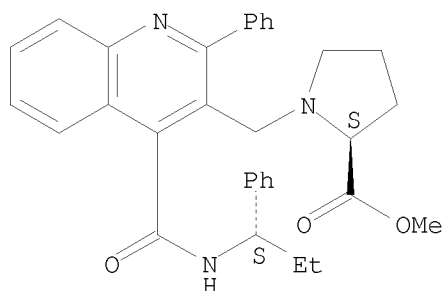
IT 216372-35-9P  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of quinoline-4-carboxamides as NK2 and NK3 receptor antagonists)

RN 216372-35-9 CA

CN L-Proline, 1-[[2-phenyl-4-[[[(1S)-1-phenylpropyl]amino]carbonyl]-3-quinolinyl]methyl]-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).





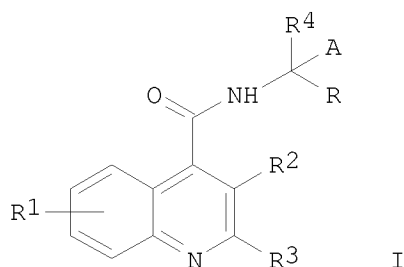
● HCl

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 19 OF 19 CA COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 127:95204 CA  
 ORIGINAL REFERENCE NO.: 127:18329a,18332a  
 TITLE: Preparation of quinoline-4-carboxamides and their use as neurokinin-3 and neurokinin-2 receptor antagonists  
 INVENTOR(S): Giardina, Giuseppe Arnaldo Maria; Grugni, Mario; Raveglia, Luca Francesco; Farina, Carlo  
 PATENT ASSIGNEE(S): Smithkline Beecham S.P.A., Italy  
 SOURCE: PCT Int. Appl., 79 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9719926	A1	19970605	WO 1996-EP5207	19961122
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
IT 1307330	B1	20011030	IT 1996-MI1688	19960802
CA 2238328	A1	19970605	CA 1996-2238328	19961122
AU 9710318	A	19970619	AU 1997-10318	19961122
ZA 9609811	A	19980522	ZA 1996-9811	19961122
CN 1207729	A	19990210	CN 1996-199747	19961122
BR 9611757	A	19990406	BR 1996-11757	19961122
HU 9901016	A2	20000328	HU 1999-1016	19961122
HU 9901016	A3	20020128		
EP 1019377	A1	20000719	EP 1996-941025	19961122
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO				
JP 2000513325	T	20001010	JP 1997-520158	19961122
TR 9800883	T2	20001221	TR 1998-883	19961122

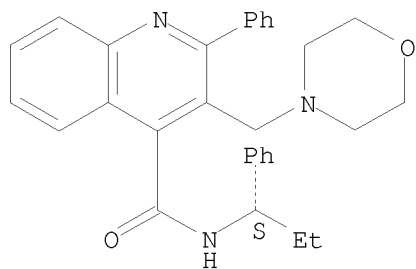
TW 409123	B	20001021	TW 1996-85114501	19961123
NO 9802333	A	19980722	NO 1998-2333	19980522
NO 311213	B1	20011029		
US 20020068827	A1	20020606	US 2001-994402	20011126
PRIORITY APPLN. INFO.:			IT 1995-MI2462	A 19951124
			IT 1996-MI1688	A 19960802
			WO 1996-EP5207	W 19961122
			US 1998-77262	B1 19980806
			US 2000-515336	B1 20000605
OTHER SOURCE(S):			MARPAT 127:95204	
GI				



- AB The title compds. [I; A = (un)substituted aryl, C5-7 cycloalkdienyl, (un)substituted single or fused ring aromatic heterocyclyl; R = (un)substituted C1-6 alkyl, C3-7 cycloalkyl, C3-7 cycloalkylalkyl, (un)substituted Ph, an optionally substituted five-membered heteroarom. ring, etc.; R1 = hydrogen or up to four substituents selected from C1-6 alkyl, C1-6 alkenyl, aryl, C1-6 alkoxy, hydroxy, halogen, nitro, cyano, carboxy, carboxamido, sulfonamido, C1-6 alkoxy carbonyl, trifluoromethyl, alkoxy, phthalimido, (un)substituted amino, etc.; R2 = hydrogen, C1-6 alkyl, hydroxy, halogen, cyano, (un)substituted amino, etc.; R3 = C1-6 alkyl, C3-7 cycloalkyl, C4-7 cycloalkylalkyl, (un)substituted aryl, (un)substituted single or fused ring aromatic heterocyclyl; R4 = hydrogen, C1-6 alkyl], useful as neurokinin 3 and neurokinin 2 receptor antagonists, are prepared Thus, (S)-N-( $\alpha$ -ethylbenzyl)-3-(2-aminoethoxy)-2-phenylquinoline-4-carboxamide was reacted with  $\alpha, \alpha'$ -dibromo-o-xylene and salified with HCl, producing (S)-N-( $\alpha$ -ethylbenzyl)-3-[2-(2-isoindolinyl)ethoxy]-2-phenylquinoline-4-carboxamide dihydrochloride (m.p. 95°; decomposition) which demonstrated a binding affinity in human neurokinin-3 receptors (expressed in CHO cell lines) against [125I]-[Me-Phe7]-neurokinin B of 1.2 nM.
- IT 191796-25-5P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of quinoline-4-carboxamides and their use as neurokinin-3 and neurokinin-2 receptor antagonists)
- RN 191796-25-5 CA  
 CN 4-Quinolinecarboxamide, 3-(4-morpholinylmethyl)-2-phenyl-N-[(1S)-1-phenylpropyl]-, hydrochloride (1:1) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

10/567,655



● HCl

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FILE 'REGISTRY' ENTERED AT 14:29:39 ON 17 SEP 2008

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L3 277 S L1 FULL

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L4 19 S L3

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Executing the logoff script...

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STN INTERNATIONAL LOGOFF AT 14:30:39 ON 17 SEP 2008